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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,434	02/28/2002	William L. Tonar	GEN-001323C3	4510
36/981	7/5/0	07/09/2010		
King & Partners, PLC 170 College Avenue SUITE 230 HOLLAND, MI 49423			EXAMINER TOSCANO, ALICIA	
			ART UNIT	PAPER NUMBER
			1796	
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			07/09/2010 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/085,434

**Applicant(s)**

TONAR ET AL.

**Examiner**

ALICIA M. TOSCANO

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-10, 19-28, 47-54, 58-60 and 67-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-10, 19-28, 47-54, 58-60, 67-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

#### ***Priority***

1. As previously set forth: Applicant's petition for unintentionally delayed claim to priority has been granted, as such the instant case has an effective filing date of 3/15/96.
2. Even in light of the above filing date the rejections set forth below stand. Tonar '283 qualifies as a 102(e) reference. Rejections in view of Varaprasad still qualify as 102(b).

#### ***Declaration***

Applicant's declaration dated 6/4/10 attempting to swear behind the instant application is not persuasive for at least the following reasons:

- 1) It is signed by only one of the inventors. 37 CFR 1.131 requires that all the inventors sign.
- 2) It never says where the alleged work was done. The work had to have been done in the US or a NAFTA country (or WTO country after 1996).
- 3) It does not include any evidence, the required evidence is as set forth in MPEP 715.07

#### ***Claim Objections***

3. Claims 3-10, 19-28, 52-54, 58-60 are objected to because of the following informalities: The steps of claim 3 (and other independent claims) are confusing. It

seems step "(d)" should be written as step "(c)" and step "(c)" should be written as step "(d)" since the crosslinking step is required to occur before providing the matrix/gel of (c)(3). It seems that there is no other plausible location, based on Applicant's specification, for the "preformed substantially non crosslinked polymer chains." Appropriate correction is required.

***Terminal Disclaimer***

4. As set forth previously: Terminal disclaimers have been approved and recorded over US 5928572 and US 6248263.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 3-10, 19-28, 47-54, 58-60, 67-69 are rejected under 35 U.S.C. 102(e) as being anticipated by Tonar (US 5679283).

Elements of this rejection are as set forth in the action dated 9/8/08, reiterated below in its entirety. Regarding the new limitations of the claims: Tonar discloses a composition of monomers, polyols and polyurethanes which are coated on the surface and crosslinked to form the cross-linked, free standing, substantially non weeping gel of the instant claims. The polyol MW ranges from 1000-2000 (Column 6 lines 53-Column 7 line 6, whereas the polyurethane MW ranges from 3300-4800 (Column 7 line 9, Ex 10). The Examiner finds 4800 MW to anticipate the "about 5000 MW" endpoint of

dependant claim 9 and the like. Either of these polymers meet the substantially non crosslinked polymer chains of the amended claims, depending on the MW required therein. The polymers are formed prior to crosslinking with them, as required by claim 8 and the like. Claim 47 and its dependants are still product by process limitations with respect to the crosslinking step even though the claim is a method claim (i.e. the gel is already provided, thusly, how the provided gel is produced is not pertinent) and are met by elements previously set forth. Newly cancelled claims have been removed from the rejection. See remarks below.

The applied reference has a common inventor/assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Tonar discloses electrochromic layers and devices comprising them. Said devices comprise at least one transparent substrate coated with a layer of an electronically conducting coating, forming electrodes (Column 1 lines 47-55), and an electrochromic medium in between (abstract). The electrochromic medium is a crosslinked matrix (Column 6 line 42), wherein the polymers which are crosslinked may have a molecular weight of 2000 (Column 6 line 56) to 4800 (Column 12 line 54).

Examiner finds 4800 to meet the "approximately 5000" requirement of the intervening claims. The crosslinking polymer is described as a free standing gel (Column 5 line 2) and does not significantly weep (Column 5 line 10), further meeting requirements of said component in claims 19-28, 47-54, 58-60, 67-69. The elements discussed meet the limitations of claims 3-10, 19-28, 47-50. Since the elements of the device are met, the Examiner finds the "solid state" requirements of Claim 51 to be met. Regarding claims 52-54, 58-60, 67-69, use of about 50 wt% (Column 7 line 14), 19 wt% and 33 wt% (Table II) of the crosslinked matrix in the electrochromic medium is disclosed and thusly meets the limitations of the claims.

Remarks:

Applicant argues the affidavit of William Tonar shows conception and reduction to practice which antedates the filing date of the reference.

The Examiner disagrees. The affidavit is not persuasive for reasons already set forth above. The rejection is thusly found proper and stands.

6. Claims 3-10, 19-28, 46-53, 54, 58-59, and 67-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Varaprasad (EP 612826 A1).

Elements of this rejection are as set forth in the action dated 9/8/08, reiterated below in its entirety. Regarding the new method steps of the claims, Varaprasad discloses the use of 8000 MW PEG on page 18 line 15, anticipating the ranges and the crosslinking polymer requirements of the claims. The PEG is used to crosslink the

coating composition and is formed from polymerized monomers, as required by claim 8 and the like. The final crosslinked product meets the free standing, substantially non weeping, crosslinked matrix requirements of the claims. The method of forming the matrix of Claim 47 and its dependants are still viewed as product by process limitations since the product is already formed when it is provided. Newly cancelled claims have been removed from the rejection. See remarks below.

Varaprasad discloses electrochromic polymeric films. Said films start as a monomer and are polymerized into polymers by exposure to electromagnetic radiation (abstract), resulting in a crosslinked matrix.

Pertaining to claim 47 the process of making the crosslinked matrix by crosslinking preformed non crosslinked polymer chains is viewed as product-by-process claims and hence the methods they are created by are not pertinent, unless applicant can show a different product is produced.

Some of the MW requirements fall under the product by process claims, thusly the MW therein is not pertinent since the end MW of a crosslinked product is infinite. The claimed MW ranges are met by use of PEG 200-8000 on pg 18 lines 14-16. Further, polymeric films may be prepared separately from the electrochromic device (Pg 20 lines 25-35), forming a free standing gel. The electrochromic polymeric medium is set between two conductive surfaces (pg 4 lines 19-20) wherein a coating of ITO may be deposited onto a substantially clear surface (pg 23 lines 56-58). It is the Examiner's position that the monomers of the crosslinking solution inherently act as a solvent for

the various plasticizers and electrochromic elements of the composition, since the solution is homogeneous prior to crosslinking. Further, since the compositional elements are met, the Examiner finds the crosslinked matrix to inherently have free standing and non weeping characteristics.

Regarding claims 53, 58-59, and 67-68, use of 21% monomer in the composition, which would result in 21% crosslinked matrix in the end product, is disclosed in Example 4 preparation A, meeting the less than 50 and 33 wt% requirements.

Remarks:

Applicant argues the newly required process steps are not met by Varaprasad.

The Examiner disagrees. Use of 8000 MW PEG as a crosslinking agent is disclosed by Varaprasad, meeting the process steps of the claims. As such Applicant's arguments are not persuasive and the rejection stands as set forth above.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 54, 60 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Varaprasad.

This rejection is as set forth in the action dated 9/8/08, reiterated below in its entirety. Newly cancelled claims have been removed from the rejection. See remarks below.



Varaprasad includes elements as set forth above. Varaprasad discloses the use of 21 wt% monomer in the crosslinking solution. Once crosslinked the composition would thusly have 21 wt% crosslinked matrix. Varaprasad does not disclose the use of less than 19 wt% of crosslinked matrix, as required by the above claims.

It has been held that a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium Metals Corporation of America v. Banner*, 227 USPQ 773 (Fed. Cir. 1985). It is the Examiner's position that there would be no difference between 19 wt% and 21 wt% crosslinked matrix, and thusly the range is found to be met by Varaprasad.

Remarks:

Applicant argues that for the reasons set forth in Varaprasad above, the elements of the claims are not met.

The Examiner disagrees. Varaprasad is not deficient for reasons set forth above. A proper prima facie case of obviousness has been put forth, as such the rejection stands as set forth above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is (571)272-2451. The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alicia M Toscano/

Examiner, Art Unit 1796